Product Evaluation

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: DR-878

Effective Date: February 1, 2018
Re-evaluation Date: February 2022

Product Name: Clad Ultimate Glazed Wood Outswing Bi-Fold Hinged Doors, Non-Impact Resistant

Manufacturer: Marvin Windows and Doors
P.O. Box 100
Highway 11 West
Warroad, MN 56763
(218) 386-4021

General Description:

System	Description	Label Rating	Design Pressure Rating
1	Clad Ultimate Glazed Outswing Bi-Fold Hinged Doors; 21080	SP-PG50 251.28 x 95.5	+50 / -50 psf
2	Clad Ultimate Glazed Outswing Bi-Fold Hinged Doors; 36100	SP-PG40 44.9 x 119.5	+40 / -40 psf
3	Clad Ultimate Glazed Outswing Bi-Fold Hinged Doors; 210100	SP-PG40 251.37 x 119.5	+40 / -40 psf

Product Dimensions:

System	Overall Size	Operating Panel Size	Panel Glass Daylight Opening Size
1	251-1/4" x 95-1/2"	41-1/16" x 90-5/16"	31-5/8" x 80-13/16"
2	44-7/8" x 119-1/2"	41-1/16" x 114-5/16"	31-5/8" x 104-13/16"
3	251-1/4" x 119-1/2"	41-1/16" x 114-5/16"	31-5/8" x 104-13/16"

Hardware:

Systems 1 and 3

- **Multi-Point Lock with Deadbolt:** One required; Located on the active door panel; Center latch and deadbolt into passive panel; foot bolts extending 1" above and below the active panel assembly when engaged.

- **Strike plate for latch and dead bolt:** Located on passive panel stile; Secured with two No. 8 x 3-1/2" flat head screws.

- **Inactive Lock**: One required; Located on the inactive door panel; receiver head and foot bolts extend 1" above and below the inactive panel assembly when engaged.

- **Dual Point Lock**: Two required; Located on the folding door panel; receiver head and foot bolts extend 7/8" above and below the folding panel assembly when engaged.

- **Panel Alignment Bolt and Receiver**: Four required; Located 28" from the top and bottom of the jamb hinged panel on the panel edge and on the side jamb. Each secured with two No. 8 x 3-1/2"flat head screws.

- **Panel Alignment Bolt and Receiver**: Eight required; located 28" from the top and bottom of panel to panel hinged stiles on the panel edge. Each secured with two No. 8 x 3-1/2"flat head screws.

- **Wall Pivot Hinge Set**: Two required; Located at the top and bottom of the jamb hinged panels. Secured to the panel stile with seven No. 10 x 2" flat head screws. Top secured to the door frame with two No. 7 x 3/4" flat head screws.

- **Intermediate Carriage Hinge Set**: Two required; located at the top and bottom of the folding panels. Four No. 10 x 1” flat head screws into each panel stile.

- **Offset Hinge Set**: One set (2 hinges total) required; located between the first and second folding panels. Three No. 10 x 1” flat head screws into each panel stile

- **Straight Hinge Set**: One set (2 hinges total) required; located between the third and fourth folding panels. Three No. 10 x 1” flat head screws into each panel stile.

System 2

- **Stationary Bracket:** Ten required, five per side; located 6" from the top of the panel and spaced 20" on center; secured with No. 8 x 3-1/2" flat head screws, one screw through each bracket.

- **Stationary Sill Bolt:** Two required; located 5" from the edge of the panel on the bottom rail.

Sill: Fiberglass reinforced polyurethane with an aluminum insert

Product Identification (Certification Label on Door):

System		
1, 2, 3	Certification Agency	WDMA
	Manufacturer's Name or Code Name	Marvin Windows and Doors
	Product Name	C Ult Outswing Bi-Fold Door
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08

Impact Resistance:

System	Impact Resistant	Requirement
1, 2, 3	No	Provide an impact protective system when installing the product in areas that require windborne debris protection.

Installation:

Systems 1 and 3: Secure the door to minimum Spruce-Pine-Fir dimension lumber wall framing. Locate the fasteners as follows:

- Head Track Corners: 1/4" x 3" washer head screws; five fasteners required; Located approximately 5" from the corner and 3" on center.
- Head Track: 1/4" x 3" washer head screws; Located 10" on center.
- Head Jamb Support Block: No. 8 x 3-1/2" flat head screws; Located 32" on center.
- Side Jambs: No. 8 x 3" flat head screws; Located approximately 5" from the corner and 15" on center.
- Sill: No. 8 x 1-1/2" flat head screws; Located approximately 5" from the corner and 15" on center

All fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

System 2: Secure the door to minimum Spruce-Pine-Fir dimension lumber wall framing. Locate the fasteners as follows:

- Head Track: 1/4" x 3" washer head screws; Located 10" on center.
- Head Jamb Support Block: No. 8 x 3-1/2" flat head screws; Located 32" on center.
- Side Jambs: No. 8 x 3" flat head screws; Located approximately 5" from the corner and 15" on center.
- Sill: No. 8 x 1-1/2" flat head screws; Located approximately 5" from the corner and 15" on center

All fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Note: Keep the manufacturer's installation instructions at the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.